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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,483	11/14/2006	Matthias Fies	C 2632 PCT/US	1290
23657	7590	04/01/2009	EXAMINER	
FOX ROTHSCHILD LLP 2000 MARKET STREET PHILADELPHIA, PA 19103			SELLERS, ROBERT E	
			ART UNIT	PAPER NUMBER
			1796	
			MAIL DATE	DELIVERY MODE
			04/01/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/553,483	Applicant(s) FIES ET AL.	
	Examiner ROBERT SELLERS	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-26 is/are pending in the application.
- 4a) Of the above claim(s) 8-14, 25 and 26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Claims 8-14, 25 and 26 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to non-elected inventions, there being no allowable generic or linking claim. The election was made **without** traverse in the reply filed on March 5, 2009.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 15-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1. The claimed mixture "obtainable" by the subsequent steps does not affirmatively denote the steps used to prepare the mixture since it embraces procedures other than that claimed in the absence of defining the process as "obtained" by the steps.
2. There is no antecedent basis for the "excess" acrylic acid and/or methacrylic acid of step c) in step a) since when optional step b) is not exercised, step a) does not require the presence of such an excess.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beck et al. Patent No. 5,096,938 in view of Kigawa et al. Patent No. 5,798,434 and European Patent No. 126,341.

3. Beck et al. (col. 2, lines 1-8) discloses an epoxy (meth)acrylate prepared by reacting 1 equivalent of a polyhydric oxyalkylated alcohol such as the elected species of oxyethylated trimethylolpropane (col. 4, Example 3) with from 0.05 to 1 equivalent of a polybasic acid such as the elected species of adipic acid and as much as 1.5 equivalents of (meth)acrylic acid followed by reacting the excess carboxyl groups contributed by the excess (meth)acrylic acid with an epoxide compound such as the elected species of a diglycidyl ether of bisphenol A (Example 3). The reaction of as much as 1.5 equivalents of (meth)acrylic acid inherently yields a blend of epoxy (meth)acrylate and residual amounts of (meth)acrylic acid within the claimed concentration range. The addition of "further reactive diluents known in connection with radiation curing" is set forth in column 3, lines 29-31.

Beck et al. does not recite the claimed from 0.01 to 20% by weight of dimerdiol (meth)acrylates.

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4. Kigawa et al. Patent No. 5,798,434 (col. 2, lines 13-20) teaches a monomer mixture obtained by esterifying dimer diols with an α,β -ethylenically unsaturated carboxylic acid such as methacrylic acid (col. 8, line 50) used as a reactive diluent for a photo-setting resin composition or a copolymerizable component for epoxy-acrylate resins (col. 13, lines 60-65).
5. The European patent (abstracts) espouses a reactive diluent for photocurable compositions comprising the reaction of a polyester polyol with as much as 150 mole% (Derwent abstract) of (meth)acrylic acid subsequently reacted with a polyepoxide. The reaction using as much as 150 mole% of (meth)acrylic acid inherently produces a mixture of epoxy (meth)acrylate and residual (meth)acrylic acid withi the claimed quantity.
6. It would have been obvious to employ the dimer diol methacrylate of Kigawa et al. as a reactive diluent of Beck et al. within the claimed proportion range sufficient to achieve an optimal viscosity in order to improve the heat and impact resistances, impact and mechanical strengths, adhesiveness, coating properties and dyeability (Kigawa et al., col. 14, lines 3-9).

Kigawa et al. does not recite the claimed mixture of (meth)acrylic compounds containing from 1 to 35% by weight of epoxy (meth)acrylates.

7. It would have been obvious to mix the dimer diol methacrylate of Kigawa et al. with the epoxy(meth)acrylate of Beck et al. in order to attain a higher quality of coatings produced therefrom (Beck et al., col. 1, lines 65-66) as well as lower the viscosity and water sensitivity (European patent, Derwent abstract, page 2).

Claims 15-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent No. 10-218946 in view of Beck et al. and the European patent.

8. The Japanese patent (Patent Abstracts of Japan) is directed to a mixture of (A) from 5-90 wt.% of a diol di(meth)acrylate, (B) from 5-90 wt.% of a dimer diol di(meth)acrylate and (C) from 5-90 wt.% of a radical polymerizable monomer.

The claimed mixture of (meth)acrylic compounds containing from 1 to 35% by weight of epoxy (meth)acrylates is not recited. Beck et al. and the European patent are discussed hereinabove.

9. It would have been obvious to mix the dimer diol methacrylate of Kigawa et al. with the epoxy(meth)acrylate of Beck et al. in order to attain a higher quality of coatings produced therefrom (Beck et al.) as well as lower the viscosity and water sensitivity (European patent).

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10. Based on the equivalent process of preparing the dimerdiol (meth)acrylates of Kitagawa et al. and the Japanese patent to that claimed resulting in structurally equivalent monomers, the dimerdiol (meth)acrylates of the references inherently possess the degrees of esterification of claims 20 and 21.

The prior art made of record and not relied upon is considered pertinent to the disclosure.

11. PCT Publication No. WO 99/23175 is drawn to ethoxylated or propoxylated dimerdiol (meth)acrylates.

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Monday to Friday, 9:30 to 6:00

/Robert Sellers/
Primary Examiner
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rs
3/26/2009